



Evaluation #

200521-I

Safety & Buildings Division
201 West Washington Avenue
P.O. Box 2658
Madison, WI 53701-2658

Wisconsin Building Products Evaluation

Material

RAZ Panel™

Manufacturer

EZ Floor, LLC
P.O. Box 68
Boscobel, WI 53805-0068

SCOPE OF EVALUATION

GENERAL: This approval evaluates the RAZ Panel™ manufactured by EZ Floor, LLC.

The **IBC** requirements below in accordance with the current **Wisconsin Amended ICC Code**:

- **Vapor Retarder:** The RAZ Panel™ was evaluated in accordance the requirements for a vapor retarder in accordance with **s. IBC 1403.3**.
- **Foam Plastic:** The RAZ Panel™ was evaluated in accordance the requirements for foam plastics in accordance with **s. IBC 2603.3**.
- **Thermal Barrier not required:** The RAZ Panel™ was evaluated in accordance the requirements for a thermal barrier that is not required in accordance with **s. IBC 2603.4.1** and **s. IBC 2603.4.1.1**.

The **IECC** requirements below in accordance with the current **Wisconsin Amended ICC Code**:

- **Moisture Control:** The RAZ Panel™ was evaluated in accordance the requirements for moisture control in accordance with **s. IECC 502.1.1 [Comm 63.0502 (1)]** and **s. IECC 802.1.2 [Comm 63.0802(2)]**.
- **Heated Slabs:** The RAZ Panel™ was evaluated in accordance the requirements for heated slabs in accordance with **s. IECC 502.2.4.11**.
- **Piping Insulation:** The RAZ Panel™ was evaluated in accordance the requirements for piping insulation in accordance with **s. IECC 503.3.3.1[Comm 63.0503(2)(a)]**, **s. IECC 503.3.3.2**, **s. IECC 504.5 [Comm 63.0504(2)]** and **s. IECC 803.3.7 [Comm 63.0803(3)(d)]**.

DESCRIPTION AND USE

The RAZ Panel™ is an assembled insulation, vapor barrier and PEX tube holding grid panel for the installation of hydronic radiant floor heating systems for basements, garages and main floor slab on grade installations where concrete is used.

The RAZ Panel™ is 2-7/8 inch thick, with 2 inches of solid EPS foam providing an R 11.9 and an 860 psf compressive strength rating. Each panel covers up to 8 square feet with a 10-mil polystyrene film providing a perm rating of .56 perms and a fastener for 1/2-inch and 5/8-inch PEX tubing.

TESTS AND RESULTS

Physical testing on the RAZ Panel™ was conducted for:

Flexural Strength in accordance with ASTM C203-99: Method 1, Procedure A Modified with results as follows:

Shell Covered Face in Tension: 524 psi maximum fiber stress and

Exposed EPS Foam Insulation Face in Tension: 459 psi maximum fiber stress

Compressive Resistance in accordance with ASTM C165-00 Modified with results of 41 psi compressive resistance.

Density testing in accordance with ASTM D1622-03 Modified with results as follows: foam 29.21 lb./ft³, plastic shell 955 lb./ft³ and volume 1.63 in.³ and plastic shell and foam 2.30 lb./ft³, 198 in.³.

Dimensional Stability testing in accordance with ASTM D2126-04 7 day @ -40°C (-40°F) and 7 day @ 70C (158°F), 97% RH.

Water Absorption testing in accordance with ASTM C272-01 Modified resulted in 2.50 % by Volume Absorbed.

Water Vapor Permeance testing was done in accordance with ASTM E96-00 Modified, Plastic Shell Facing Humidity resulting in 0.56 perms and Foam Facing Humidity 1.30 perms.

Thermal Resistance testing in accordance with ASTM C518 Modified resulting in R 11.9.

LIMITATIONS OF APPROVAL

The RAZ Panel™ shall be installed per the manufacturer's installation instructions as allowed under the scope of this approval.

This approval will be valid through December 31, 2010, unless manufacturing modifications are made to the product or a re-examination is deemed necessary by the department. The product approval is applicable to projects approved under the current edition of the applicable codes. This approval may be void for project approvals made under future applicable editions. The Wisconsin Building Product Evaluation number must be provided when plans that include this product are submitted for review.

DISCLAIMER

The department is in no way endorsing or advertising this product. This approval addresses only the specified applications for the product and does not waive any code requirement not specified in this document.

Revision Date:

Approval Date: March 27, 2006 By: _____

Lee E. Finley, Jr.
Product & Material Review
Integrated Services Bureau